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June 6, 1995

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Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Room 222  
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

Re: Docket No. ET 95-19

Dear Mr. Caton:

Transmitted herewith, on behalf of Texas Instruments Incorporated, is a corrected original and five copies of the "Comments of Texas Instruments Incorporated" filed by this firm on June 5, 1995, in the above-captioned proceeding.

The pleading as filed contained minor typographical errors that were not corrected prior to submission because of a wordprocessing problem. No substantive changes have been made.

Should you have any questions regarding this matter, please call me at (202) 429-7235 or David Hilliard at (202) 429-7058.

Respectfully submitted,

*Kurt E. DeSoto*

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Counsel for Texas Instruments  
Incorporated

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Before the  
Federal Communications Commission  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

In the Matter of )  
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Amendment of Parts 2 and 15 of the ) ET Dkt. No. 95-19  
Commission's Rules to Deregulate )  
the Equipment Authorization )  
Requirements for Digital Devices ) DOCKET FILE COPY ORIGINAL

TO: The Commission

**COMMENTS OF TEXAS INSTRUMENTS INCORPORATED**

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June 5, 1995

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## SUMMARY

Texas Instruments commends the FCC's efforts to deregulate the authorization requirements for digital devices. The proposed changes will permit companies to introduce new technology more quickly into the marketplace.

Texas Instruments urges the agency to apply its verification procedures rather than new DoC procedures that would require companies to include additional information in the user manuals furnished with digital devices. The FCC's proposal in this regard places significant burdens upon companies without achieving the agency's goals to ensure compliance. Appropriate equipment labelling -- that also recognizes industry practices of contract manufacturing and private labelling -- would better serve the FCC's objectives.

Nor should the agency adopt the NVLAP accreditation requirement. This proposal fails to ensure veracity in the reporting of test results. The additional regulatory burdens that would be imposed by mandatory NVLAP accreditation far outweigh any potential benefits.

Last, the agency should reconsider its proposal regarding the authorization process for modular computers. The rules as proposed could effectively increase emissions limits thereby creating two different standards. Such a result is inconsistent with the FCC's purpose in this proceeding and could place non-modular manufacturers at an unwarranted disadvantage.

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TO: The Commission

**COMMENTS OF TEXAS INSTRUMENTS INCORPORATED**

Texas Instruments Incorporated ("TI") hereby submits its comments in response to the Commission's *Notice of Proposed Rulemaking* ("*Notice*"), released February 7, 1995.<sup>1</sup> TI is a major manufacturer of semiconductors, personal computers, peripherals, and other digital devices. Since 1980, TI has obtained over 100 equipment authorizations ("certifications") from the Commission for personal computers and personal computer peripherals. As one of the first manufacturers of personal computers, TI has long had an interest in the Commission's electromagnetic compatibility and marketing regulations.<sup>2</sup>

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<sup>1</sup> A summary of the Notice was published in the Federal Register on March 22, 1995. 60 F.R. 15116.

<sup>2</sup> TI played a key role in encouraging the Commission to complete Docket 20780 which led to the original "computing device" regulations in Part 15. First Report and Order in Docket 20780, 44 FR 5930 (1979), *recon. in part*, 45 FR 24154 (1980).

TI salutes the Commission's recognition of the need to reform the current certification system. The Commission has made commendable efforts to reduce the waiting period for the processing of equipment authorization applications. Nevertheless, the product development cycle and the marketing life of personal computers have changed dramatically in the last 15 years. Now, it is usual for companies to have a three-month development cycle accompanied by a six to nine month product life. In such an environment, a 30 to 45-day wait for FCC processing becomes an inordinate gating factor delaying the introduction of new technology while making it more difficult to maintain competitive positions within the marketplace. The changes proposed by the Commission and those recommended by TI in these comments would allow companies to develop and implement technology much earlier. These revisions also would permit companies to gauge potential markets better and to build parts inventories sooner. In addition, there would be a tremendous reduction in paperwork for the Commission, thereby allowing the agency to have greater flexibility in the management of its own resources.<sup>3</sup> Accordingly, TI urges the Commission to move forward with changes in the digital device equipment authorization program by placing personal computers and peripherals under a verification program.

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<sup>3</sup> As noted, *infra* at 6 and at n. 9, and in the *Notice* at ¶10, some of these resources should be directed toward enforcement.

## **VERIFICATION**

Now that the Commission and industry have had nearly 15 years of experience with the current authorization requirements, TI submits that the time has come for the Commission to place personal computers and personal computer peripherals under a verification program while maintaining the Class B limits for radio frequency emissions from such equipment. Verification can be administered to provide the same level of compliance as would be obtained from the proposed "Declaration of Conformity" ("DoC") program. Should the Commission move forward with the DoC approach, however, TI offers certain comments designed to facilitate the efficient implementation of such a program.

Since 1980, the Commission's Rules have required digital devices other than personal computers and personal computer peripherals to be verified for compliance with the Commission's radio frequency emission limitations set forth in Part 15 of the FCC rules before such devices are marketed. Accordingly, Part 15 currently imposes a verification requirement not only for most commercial and industrial digital devices, but also for a host of consumer digital devices including a wide variety of electronic calculators, learning aids, and entertainment products. Thus, the verification program has, in a very real sense, bracketed personal computers and peripherals, which are currently subject to certification.<sup>4</sup>

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<sup>4</sup> "Certification is an equipment authorization issued by the Commission for equipment designed to be operated without individual license under Parts 15 and 18 of  
(continued...)"

Under verification procedures, the party responsible for compliance must test the product before marketing. Upon the determination that the product complies with the FCC requirements, the responsible party would place into a verification file for the product the test report, photographs, and a statement by the responsible party that the product as marketed will conform to the product as tested and will comply with the requirements.<sup>5</sup>

The Commission should not, however, under either verification or the DoC approach require that the manual reference a specific test report and model number. While such information can be readily maintained in a responsible party's files, manuals are often printed in advance of the completion of conformity testing and may be employed for multiple models. Some of these models may be developed much later than the original model. Whatever enforcement benefits would accrue from reference to a specific test report could also be achieved by identifying the responsible party on

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(...continued)

its rules, based on representations and test data submitted by the applicant." 47 C.F.R. § 2.907(a) (1994). It contrasts with verification, which is "a procedure where the manufacturer makes measurements or takes the necessary steps to insure that the equipment complies with the appropriate technical standard. Submittal of a sample unit or representative data to the Commission demonstrating compliance is not required unless specifically requested by the Commission pursuant to § 2.957, of this part." 47 C.F.R. § 2.902(a) (1994).

<sup>5</sup> See Public Notice of March 11, 1998 ("Information to be Included in Verification Reports Clarified"). The "Responsible Party" is defined in 47 C.F.R. § 2.909 as the manufacturer or the importer in the case of equipment subject to verification. As discussed, *infra*, the term "Responsible Party" should be clarified in the case of personal computers and peripherals subject to verification in order to accommodate better the common practices of contract manufacturing and private labeling.



the name plate through the use of a code that could be placed beneath the FCC logo on the label.

In sum, TI submits that use of the verification approach will afford both substantial savings in time-to-market for manufacturers while greatly reducing the administrative burden on the Commission. Overall, the benefits will redound to consumers.

## **ACCREDITATION**

In the *Notice*, the Commission stated that it was "proposing to require that laboratories testing personal computers and personal computer peripherals be NVLAP accredited."<sup>6</sup> TI opposes the proposed NVLAP accreditation requirement. The Commission has administered a digital device equipment authorization program for 15 years without requiring that laboratories be so accredited. Verification also has proceeded satisfactorily without requiring such accreditation. TI personnel have performed thousands of emission tests. TI's laboratories and those of most other manufacturers are not NVLAP accredited. The current requirement of having laboratories submit site descriptions and attenuation data to the Commission every three years has proven to be an adequate and less burdensome method for demonstrating that satisfactory measurement results can be obtained from a site.

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<sup>6</sup> *Notice* at ¶ 8. NVLAP refers to the National Voluntary Laboratory Accreditation Program administered by the National Institute of Standards and Technology.

The current approach contrasts with the NVLAP program, which has received a lukewarm reception even among companies organized primarily to offer testing services. In its *Notice*, the main rationale the Commission offers for mandating the National Voluntary Laboratory Accreditation Program is that it believes "NVLAP can serve as an effective measure for laboratories to demonstrate competence to perform FCC compliance testing." In TI's experience, the problem has not been a matter of competence. Instead, the principal issue associated with any regulatory program of this type is one of accountability and veracity. NVLAP accreditation will do virtually nothing to address the problem of accountability. Rather than mandating NVLAP accreditation, the Commission should direct its focus toward maintaining a credible enforcement presence by auditing verification records. Where warranted because of a complaint or question raised in the paper record, the FCC should call products for testing.

The Commission also observed that "laboratory accreditation is generally required, either implicitly or explicitly, under most foreign product approval procedures."<sup>7</sup> Because other nations have added a layer of bureaucracy and additional paperwork is no reason for the United States to do the same. If some form of laboratory accreditation eventually is required for purposes of satisfying mutual recognition agreements with foreign countries, the Commission should treat such a matter separately from this proceeding.

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<sup>7</sup> *Notice* at ¶ 8.

## **LABELING AND INFORMATION TO USERS**

Under either verification or the DoC approach, the responsible party would label the product in accordance with the Commission's requirements. The responsible party also would place information in the user's manual informing operators of the equipment that the device has been verified for compliance. As currently required, this information would instruct the user as to steps that could be taken to reduce interference and the obligations incumbent upon the user.<sup>8</sup>

New procedures for authorizing personal computers and peripherals should take into account industry practices of contract manufacturing and private labeling.

"Contract manufacturing" refers to those situations in which one party pays another to build products to the paying party's specifications under the control of the paying party.

"Private labeling" refers to the situation in which one party pays to have its own name placed on devices for which it exercises no control in manufacturing and design. As a general principle, TI submits that the "responsible party" should be the party that has control over the design and manufacturing of the product. Thus, the new rules should provide a means for identifying the party responsible for verification so as to facilitate enforcement by the Commission either in response to a complaint or as part of any auditing that the Commission may undertake.<sup>9</sup>

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<sup>8</sup> 47 C.F.R. §§ 15.21, 15.105 (1994).

<sup>9</sup> In order to reinforce the integrity of either a DoC approach or verification, TI  
(continued...)

Contract manufacturing most often occurs where one company has a need to utilize the excess capacity of another in order to meet demand for products. In such cases the party paying for the fabrication of the product exercises control over the design and manufacture of the product. Typically, the product is marketed in the name of the party that has contracted for fabrication of the product. Private labeling, as the concept is used in these comments, simply involves the application of a different tradename to a product for which the design and manufacturing control rest with an entity other than that identified by the tradename. Perhaps the most common example of private labeling involves computer monitors. In the case of contract manufacturing, the party that pays for the fabrication of the device seldom desires to have the name of the manufacturer shown on the device or revealed in the manual for the product. Similarly, in situations involving private labeling, the holder of the tradename seldom desires to have the identity of the actual manufacturer revealed clearly on the label or in the manual. The problem of revealing the name of the responsible party did not arise with personal computers and peripherals subject to certification because the grantee code in the FCC identification number clearly referenced the responsible party. In a similar vein, FDA regulations covering electronic products require that the name

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(...continued)

encourages the Commission to audit equipment. Not every audit requires the submission of equipment to the Commission for retesting. At a minimum, however, the Commission should randomly sample to obtain verification reports. Any change in the regulations should also clarify the documentation that should be included in the verification reports. Note 5, *supra*; cf., *Notice*, at ¶ 6 (proposed contents of the Declaration of Conformity).

of the party responsible for compliance be included on the label, but permit this to be done in the form of a code known to the agency.<sup>10</sup> The same approach should be permitted for personal computers and peripherals. Thus, the Commission could permit the use of what is currently the grantee code as a means to identify the responsible party. In this manner, the identity of the party with the most control over compliance would readily be available.

The Commission also should streamline the labeling requirements for equipment. Simple graphical representations indicating compliance with FCC-A or FCC-B would reduce required label space. As products continue to shrink in size, it is becoming more and more difficult to find areas large enough to accommodate all of the required safety and emissions labels. Such a revised requirement would serve in addition to clarify the class for which the equipment has been tested. Currently, the label does not indicate whether the equipment meets Class A or Class B limits. Greater publicity for the particular level of compliance would encourage companies to build to the higher Class B limits.

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<sup>10</sup> 21 C.F.R. § 1010.3 (1993).

## MODULAR ASSEMBLY

TI does not currently manufacture computers by integrating subassemblies from other companies as discussed in the *Notice* at paragraphs 14 through 25. Portable computers are not typically manufactured using generic modular subassemblies and componentry. Nevertheless, TI is concerned about the wisdom of adopting the modular approach because of the difficulty of maintaining a "level playing field" with respect to emissions compliance. TI expends considerable resources in testing its computers for initial certification as well as testing throughout the product life as changes are made. TI's experience is that relatively minor changes can significantly affect compliance. Accordingly, TI questions whether the modular computers envisioned in the *Notice* can be built without having significantly greater variation in emissions limits than those computers for which the manufacturer has a specific testing obligation.

Moreover, to the extent greater variation in compliance could be expected from a modular manufacturing approach, the Commission would be creating a situation in which it effectively could amend the actual emissions limits, albeit indirectly. Insofar as modular units routinely could exceed the limits and still comply, the modular approach effects a change in the limits.<sup>11</sup> Accordingly, TI suggests that the

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<sup>11</sup> TI recognizes that under any program there inevitably will be unit-to-unit variations caused by the vagaries associated with quantity production and that these may result in some of the units within a given lot not meeting the limits by a small amount. See 47 C.F.R. § 2.931 (1994). The problem with the modular approach is that it would be both possible and legal for the entire lot routinely to fail to meet the actual limits.

Commission exercise extreme caution in its consideration of the modular approach. If there are differences in compliance between modular computers and those computers for which compliance was determined after testing each or the worst case configuration of a particular model, there will be significant economic consequences. Thus, a manufacturer might find that the modular approach is the path of least resistance to obtaining compliance on paper while avoiding added costs. Unfortunately, the degree of actual compliance may be illusory.

## CONCLUSION

In this proceeding, the Commission stands poised to benefit from almost one and a half decades of experience in the regulation of radio frequency emissions from digital devices. The insight gained over the last 15 years affords a sound basis for a change in the procedures, but not the substance, associated with obtaining approval to market digital devices. In order to reduce the burden on manufacturers and the Commission, while maintaining an effective program to minimize interference to radio communications, TI recommends that the Commission require verification to the Class B standards for personal computers and computer peripherals.

Respectfully submitted,

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